



THE

# CALYPSO

NEWSLETTER

of the

DOROTHY KING YOUNG CHAPTER

of the

CALIFORNIA NATIVE PLANT SOCIETY

P. O. Box 577, Gualala, CA 95445  
\$3.75 per year, non-members.  
May be copied with credit given.  
Volume 91, #2, March-April, 1991

---

## OFFICERS, 1991

PRESIDENT: Dorothy Scherer, 882-2850  
VICE PRESIDENT:

SECRETARY: Katy Horn, 785-2747  
TREASURER: Joan Gates, 877,3425

PAST PRESIDENT: John Horn, 785-2747

## CHAIRPERSONS - STANDING COMMITTEES

PROGRAMS: Mariannè Mitchell  
CAMPING: Clare Wheeler, 895-3131  
LEGISLATION: Ray Van de Water,  
HISTORIAN: Bob Perkins, 882-2705  
NEWSLETTER: John Horn, *et alii et aliae*  
PUBLICITY: Pauline Wrenn, 884-4045  
RARE & ENDANGERED: North Coast, Teresa Sholars, 961-1010; South coast, Mary Rhyne, 884-3043; The Sea Ranch, George Snyder, 785-2244; Inland, Clare Wheeler, 895-3131  
POSTER GIRL: San Smith, 884-4060  
T-SHIRT SALES: Rosamond Gumpert Jorgensen 882-2339

MEMBERSHIP-MAILING: Mary Sue Ittner, Bob Rutemoeller 884-4824  
CONSERVATION: Flo Van de Water 884-3239  
BOOK SALES: Mary Hershberger 884-3024  
JUBATAGRASS ERADICATION: Ed Wrenn  
MEMBER AT LARGE: Rita Fenton. 937-4043  
SOCIAL: Marion Perkins, 882-2705  
ESCAPED EXOTICS: Paul Jorgensen 882-2339  
PLANT SALE: Lynn Bentley.

---

FIELD TRIP POLICY: Field trips are held, rain or shine. No smoking nor radios on trails. No pets on field trips. Bring lunch and beverage. Transportation to and from the field trip site is the responsibility of the individual.

---

## CALENDAR:

March 1, 2 State CNPS Rare Plant Program, Sacramento  
March 2, State CNPS Board Meeting, Sacramento  
March 2, 3 Pygmy Forest Workdays, Nature Conservancy  
March 17, Calypso Walk, DKY Birthday  
April 6, Fern Walk, Van Damne State Park, Marilyn Bucher, Leader  
May 3, 4 and 5th Camping - Alabama Hills and Eureka Dunes  
May 10, Dky Board meeting  
May 12, Wildflower walk, Salt Point State Park, John Madison, Leader. Call to confirm.  
May 18, Wildflower Walk, Zeni Ranch, Yorkville. George Zeni, Leader  
June 1, CNPS State Board Meeting, location to be confirmed  
June 8, Bio-intensive Gardening Workshop and tour, Willits.

June 25, 26 and 27, Camping trip to Lassics

August, Camping, How about suggestions - ?

August, Grass workshop and tour, John Madison, Leader. Date to be confirmed.

Sept. 1, 1992, Plant Sale, Gualala, Fort Bragg

---

## DKY PROGRAMS:

### CALYPSO WALK:

Our DKY Birthday Picnic and Calypso Walk will be held at 10:30 a.m., Sunday, March 17 at "Grandpa Charley's Park" on the Gualala Ridge. Arrangements are being made for our esteemed first president and namesake, Dorothy King Young, now of Arcata, to be with us!

We are holding the event at "Grandpa Charley's Park" at the kind invitation of William E. Rand who purchased the property from Charles and Dorothy Young at the time the Youngs left Gualala. Bill and Dody hope to fly in from Ottawa to be with us.

Earlier DKY members, regardless of whether or not they still hold membership in CNPS, are cordially invited to this special 25th Anniversary event. Everyone should plan to bring a potluck dish - either

a main dish or a salad, plate and table service and a folding chair. The DKY Chapter will provide coffee and cake.

To reserve your place please phone Dorothy Scherer (882-2850), Mary Rhyne (884-3043) or John Horn (758-2747) by March 12. Grandpa Charley's Park is located at 38880 Old Stage Rd., just north of it's junction with Pacific Woods. There will be signs and someone to direct you.

#### PYGMY FOREST WORK DAY:

The Nature Conservancy is planning a workparty to begin development of a nature trail. This will be held both March 2nd and 3rd at 10: a.m. at the Pygmy Forest Preserve. The meeting place is just off of the Albion Airport Rd., just west of Jacobs Rd. There is a sign.

#### FERN WALK:

We are pleased that a fern walk this year will be led by **Marilyn Bucher**, a life-long naturalist and horticulturist. Marilyn has a wholesale nursery in Gualala now specializing in orchids, and she has graciously contributed plants for our plant sales. We will meet at the Pygmy Forest parking area at 10:00 a.m. To get there, turn onto Little River Road just south of the Little River Inn and drive for 2.7 miles. Watch for the Pygmy Forest parking sign on the left. Bring a lunch. The hike is about 4 miles round trip and includes plant communities of the Pygmy forest and Fern Canyon. Parking at the Pygmy Forest is limited, so carpooling is recommended. There is additional parking at Van Damme Beach.

#### CAMPING AT ALABAMA HILLS AND EUREKA DUNES:

Our camping Chairperson **Clare Wheeler** has been busy planning a wonderful trip to the east side of the Sierra Nevada Mts. to explore the flora and the geology of this fascinating area. To receive a packet of information, send a post card to Clare Wheeler, P.O. Box 166 (Note the change in her number!), Yorkville, CA, 95494. Sending for a packet does not obligate you to attend.

#### WILDFLOWER WALK AT SALT POINT:

The final confirmation for this walk will depend on the rain which controls the progression of blooms! Please phone **John Madison** (884-3043) or **Dorothy Scherer** (882-2850) to confirm.

#### WILDFLOWER WALK AT THE ZENI RANCH:

**GEORGE ZENI** has graciously offered to lead us on a walk on his ranch which contains extensive plantings of fruit and nut trees, as well as many acres of natural growth. Particularly notable are large Chestnut trees as well as acres of Christmas trees! CNPS members will also see a wealth of wildflowers in the woods and meadows on this 200 + acre ranch. George says he has albino redwoods and one huge old redwood 12 - 13 feet in diameter. To get there, follow Fish Rock Rd. east to mileage marker 15.00. The address is 30995 Fish Rock Rd. on the north side of the road. Bring a lunch, meet at 10:00 a.m.

#### WORKSHOP AT Ecology Action mini farm in Willits:

Started by John Jeavons, author of How To Grow More Vegetables Than You Ever Thought Possible on Less Land Than You Can Imagine, and others originally working with Alan Chadwick (the man who brought the bio-intensive method of gardening to this country), this research farm addresses the question, "What is the smallest amount of land for

growing a complete diet"? Their research shows that 4 times more vegetables per acre can be grown using the bio-intensive method that using mechanical and chemical agriculture techniques and with only one eighth the water. Hard hit by the drought, California agriculture is facing reduced crop production this summer and very likely elimination of some food crops. The work of Ecology Action since 1972, is particularly timely.

As a means of supporting their research and as a way of communicating the findings, Ecology Action holds several one-day programs throughout the spring and summer. These begin with a two hour lecture, tour of the garden and some hands - on work. The charge is \$5.00 per person. They also sell a line of open pollinated vegetable seeds (some from England) named Bountiful Gardens and available through their catalogue.

For our purposes June 8 looks like the best time for such a trip (at least for the "coasties" who could possibly wilt in August weather!). These sessions are well attended and to insure a place, it is necessary to send the fee of \$5.00 at least by April 1st. To expedite reservations, please mail your check directly to: Ecology Action, 5798 Ridgewood Rd., Willits 95490. Make the check out to Ecology Action; they in turn will send out an information packet complete with directions. Also included will be a list of everyone in the program so that people can arrange carpooling. Hope to see you there!

#### IN RETROSPECT -

On Sunday evening, Feb. 3rd, at the Gualala Community Center, **Mary Rhyne** presented a program on landscaping with natives plants. Using slides, books, magazine articles and a magnificent collection of specimens of mostly native plants, Mary provided valuable suggestions for creating aesthetic gardens and using plants that need little watering - a most appropriate topic for these times. It was an informative evening, and we want to thank Mary for all of the work we know that it takes to put together such a fine program!

The 1992 Plant Sale Committee met in the cozy workshop at the home of **Dorothy and Dick Scherer** on Tuesday January 29. **Lynn Bentley**, plant sale chairperson, led a discussion of organization, plants to grow and timing for the next sale. Water problems in caring for plants in time of drought was a prime issue which could affect preparations for the sale. 16 people attended. Thanks to the Scherers for providing their home and the coffee and cookies! Any of you out there who would like to learn more about our native flora should consider joining this group to learn about natives on a really personal level!!!

On Sunday Feb. 17 **Polly and Doug Dakin** kindly provided access to their property on 10 Mile Cutoff Rd. for a "plant dig" to begin collecting specimens of native plants for the plant sale in 1992. 12 people attended, and specimens of the following species were collected:

rhododendrum - Rhododendrum macrophyllum  
hairy manzanita - Acrostaphyllum columbianum  
evergreen huckleberry - Vaccinium ovatum  
Western hemlock - Tsuga heterophylla  
Salal - Gaultheria shallon  
tanbark-oak - Lithocarpus blume  
wax-myrtle - Myrica californica

many, many thanks to Polly and Doug for their generosity and help in launching the 1992 plant sale.

Supplies for propagating plants are available at the Scherers and include plant containers, peat moss, perlite and vermiculite.

#### STANDING COMMITTEE REPORTS:

**BOOKS:** Mary Hershberger said that a goodly number of books were sold at the Community Center during Mary Rhyne's program. Be sure to call Mary should you want a book or two - remember they are discounted to members. 884-3024.

**CAMPING:** The trips for this year are taking shape under the able hands of **Clare Wheeler**. Remember to let her know if you plan to attend any of the up-coming trips. 895 3131. P.O. Box 166, Yorkville, 95494.

**CONSERVATION:** Flo Van de Water writes that CNPS has sued the U.S. Fish and Wildlife Service to force them to add 159 native California plants to the endangered species list. Only 18 have been added since 1982. At that rate it would take 70 years to list the remaining 159. Without the legal protection offered by the Endangered Species Act, many of these plants will have become extinct long before then. A similar suit in Hawaii was settled successfully last year.

The Mendocino National Forest had cancelled a 3,000 acre timber sale adjacent to the Snow Mountain Wilderness due to the area's designation as a northern spotted owl habitat conservation area (HCA). Local environmentalists in Willows and Lake county have proposed that part of this land along Stony Creek be studied for Wild and Scenic River System.

Do you want to let the White House know how you feel about the lack of conservation in the President's Energy Bill? Call them up - !!!

White House Comments Desk - (202) 456 1111  
Energy Council - (202) 586 5000

Call before 8:00 a.m. for cheaper rates.

**ESCAPED EXOTICS:** Joan Curry, CNPS member from the Mendocino area has spearheaded a drive to rid the Mendocino Headlands of all exotics particularly scotch broom, ice plant, and radish. These species are not native to California and were brought in either by accident or on purpose and have subsequently taken over large areas of the park. Exotics often successfully compete with native plants causing natives to disappear or to be present in small numbers. The purpose of this effort, then, is to bring back the native plants which were in abundance prior to the introduction of the exotics. Joan reports that the first efforts were a great success with the help of the students from John Lawrence's ROP Landscaping class from Mendocino High School, Dwight and Shirley Eberly of the Sea Ranch, Betty Smith of Mendocino, Nancy Menken and spouse Reuben Salazar of Irish Beach and Lily Ricardi of Little River. The California Department of Parks and Recreation has given its enthusiastic support for this effort to remove and eradicate exotics within the Park Units in the Mendocino District. Anyone wishing to be of help in this effort give Joan a call, (707) 937-1649

**HISTORIAN:** Bob Perkins will have the "Big Book" illustrating the activities of our chapter available for all to see at the Calypso Walk celebrating our 25th anniversary. Be sure you find a moment to look through this interesting record.

**JUBATA GRASS:** Ed Wrenn continues to dig up small plants in the Gualala Area. Some spraying will begin after the rains. (Rains..?) Pampas grass continues to spread in a fearful manner - the big freeze didn't seem to 'phase' it! If you have plants and you want them removed call Ed. 884-4045

**NEWSLETTER:** Dorothy, John and Marianne remind all of you that we would appreciate your sending anything you feel needs to be in the Calypso to P.O. Box 356, The Sea Ranch, CA 94597. We will find room somewhere for any interesting material. We would particularly appreciate articles or information concerning plants and plant communities of our area. Any questions or comments call John Horn, 785 2747.

**MEMBERSHIP:** It is with great pleasure that we welcome the following new members to the Dorothy King Young Chapter of the CNPS:

Bernard W. Nelson - Littleton, CO.  
Betty Athens and Ray Comeau - Gualala, CA  
Hillary Adams - Elk, CA  
Raquel Mashlach and Walt Stillman - Point Arena, CA

And we want to welcome back:

Mr. and Mrs Daniel B. DeBra - Los Altos, CA.

**LEGISLATION:** Ray Van deWater reports that in the wake of last November's election defeat of all timber-related initiatives on the ballot, the interested parties apparently have realized that the only sensible approach is to cooperatively negotiate reasonable compromises on the various issues that all can live with. Accordingly, ongoing discussions are now taking place between leaders of conservation organizations and the timber industry. The goal is to eventually agree on a set of reform measures that can then be submitted to the State Legislature for enactment.

For their part, our legislative representatives have indicated a willingness to work on such legislation which, it seems, they should have done long since. For the moment, they are waiting to see what comes out of the inter-party discussions now taking place. Hopefully, these will produce a successful result, since no one wants to repeat the enormous expense and divisive effects of the initiative process. However, if it later becomes necessary, that avenue remains open to us. At the present stage, it seems there is nothing effective that we can do as an organization, or as individuals, to advance our concerns.

**CALIFORNIA DESERT PROTECTION ACT.** Desert lovers will be pleased to learn that this act, which would create three new national parks in the Mojave Desert area, has been re-introduced this year in the U.S. Senate. Its designated new number is S. 21. Interested members should write or other wise contact both senators from California (Cranston and Seymour), as well as their representatives in the House, expressing support for the measure.

**PLANT SALE:** Lynn Bentley, reports that the preparations for the 1992 plant sale are progressing smoothly. She has suggested that we consider having a second day of the sale at the Mendocino Botanic Gardens in order to provide a time for the folks who live far from Gualala to participate in the sale.

**POSTERS:** San Smith reports that a new poster, Wildflowers of the Coast, will be available for purchase after March 2nd. The price for posters has gone up to \$6.00 for un laminated and \$9.00 for laminated. If you are interested in this poster contact San. 884-4060.

### POSTER CONTEST

As we reported in the last issue the poster contest is off to a good start with the participation of many of our local schools. What we neglected to say was that the schools in Elk, Medocino and Fort Bragg are also involved in this year's contest - these schools for the first time! Best of luck to all of the contestants!!

**PROGRAMS:** Marianne Mitchell is busy learning the "ropes" of being program chairperson. Any suggestion that you might have for programs in the future would be greatly appreciated! Call her - 884-1580.

**RARE AND ENDANGERED:** Rare and endangered coordinators from all CNPS chapters will meet in Sacramento, Friday, March 1st for an orientation tour of Fish and Game's Natural Heritage Division and the Natural Diversity Data Base. Saturday, March 2nd will be an all-day conference. Mary Rhyne will attend. Also, John Madison, Terry Sholars and Clare Wheeler may be there also.

Mary has written to Mendocino College for permission to do a plant community survey on their research property (Coastal Prairie) at the Loran Coast Guard Station. She has also written the new owners of former P.G and E. property north of Point Arena for permission to do a "wildflower walk" on their property -(a plant community survey). These surveys will hopefully take place between March 15 - 31. She will contact the Plant Community Surveyors when a date is set.

### DKY BUSINESS:

Lynn Bentley, Plant Sale Chairperson, reports that Ken Montgomery, owner and operator of the Anderson Valley Nursery is donating 1000 one-gallon pots to DKY's plant sale. Stop in and say hello and thank you to Ken and transport some of the pots back to our area if you have space available in your car or truck. The Anderson Valley Nursery is located in Boonville at the intersection of Mountain View Road and Highway 128. Ken specializes in native plants. Supplies are being assembled at the home of Dick and Dorothy Scherer.

Sarah Flower reports that she is busy putting together her program for the classes at both Manchester School and Arena Elementary. As you may remember, the DKY Chapter has provided Sarah with a small grant to allow the development and implementation of a program designed to introduce elementary and middle school students to plants, plant communities and to environments common to our area. She plans to emphasize the Coastal

Strand/Dunes, Coastal Prairie and Redwood Forest. Presentations will be made during the months of March and April with field trips scheduled to allow the students to visit the various communities.

Earlier this year, Sarah spent time in South Carolina working with 125 fourth graders planting 125 long leaf pines, the first step in establishing this forest native to the Sandhill Province. She will return each year for three years to continue work on this forest project. Obviously Sarah is an invaluable member of our overall teaching community and she deserves KUDOS for all of her work!! We hope to continue to support her efforts in our community in the future. To educate children about the importance of native plants must be one of the most significant endeavors that our chapter can support!

Lynn Bentley has talked with Chet Boddy of the Mendocino Coast Botanical Gardens and he feels that the CNPS should have input into the gardens - especially the restoration of the headlands. They have the work force and the power equipment. Chet would like to have some of us come up and walk the headlands along with Tom Tillotson, Head Gardener to give advise on what to plant, where to plant, etc.

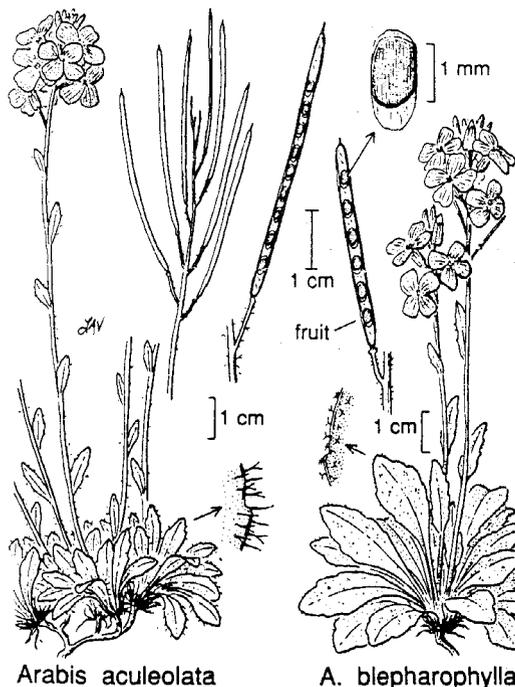
### ISSUES AND INFORMATION:

#### ROCKCRESS SEARCH:

Linda Ann Vorobik, illustrator and botanist with the Jepson Herbarium is currently revising the "purple-flowered" Arabis group (i.e. the Arabis blepharophylla group):

A. aculeolata	Waldo rockcress
A. Blepharophylla	Coast rockcress
A. mcdonaldiana	McDonald's rockcress
A. modesta	Rogue Canyon rockcress
A. oregana	Oregon rockcress

She will be publishing next winter, and so needs to visit as many populations of these species as possible this spring and summer. If you know of populations of any of these species that you think may not be well-known already, please contact Dr. Vorobik at the Jepson Herbarium, U.C., 6701 San Pablo Ave., Oakland, CA 94608. Phone (415) 643-7008 days, 527-3023 evenings or messages.



Arabis aculeolata

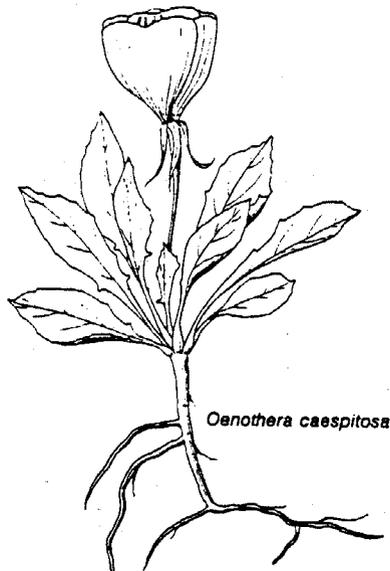
A. blepharophylla

## A NEW BOOK:

The Theodore Payne Foundation announces a new publication, Gardener's Guide to California Wildflowers by Kevin Connelly. The book presents previously hard-to-find information for the successful cultivation of California wildflowers in both natural areas and in landscaped settings. Gardener's Guide outlines the fundamental elements necessary to produce a succession of wildflower bloom from early spring to fall. Comprehensive lists of California native annuals, perennials, bulbs and ferns accompany chapters discussing appropriate species for beach, coastal and interior valleys, desert and mountains. Thirteen stunning color plates assist the reader to select his own landscape choices.

The author, Kevin Connelly, has written for the Los Angeles Times and Pacific Horticulture, and has created wildflower gardens at the Theodore Payne Foundation, Earthside Nature Center, the historic Charles A. Lummis home and many private residences. The retail price is \$12.95. Call Mary Hershberger, Book Sales Chairperson, if you are interested in this new volume. 884-3024.

**Ray Van de Water Reports that Dan Murley of Fort Ross Interpretive Assn. (FRIA) would very much like our chapter to begin a plant survey of the newly acquired portion of the park. We have been invited to come and camp at Upper Kolmer Gulch - that beautiful and primitive old hunting camp deep into their new property on the west side of Hwy. One!**



## MADISON'S MUSINGS:

TIMBER jobs decreased right after the election. One gets the feeling that the companies waited till after the election so that if the initiatives passed, layoffs could be blamed on environmentalists. The reasons for the cutback in timber use are complex but in part due to the present attitude of developers.

After the Gann act, cities became more and more strapped for funds. One way of getting money was to try to make services self supporting. From the standpoint of taxes, each new house is a loss, for it costs more to support the services than is got in taxes. As a result cities have been increasing the costs of sewer connections, water connections, adding fees for park and school development, for parking lot development, for administrative services, for fire protection etc.

A result is that with rising land costs, a developer faces costs on the order of \$125,000 for a 6000 sq. ft. lot and construction fees of from 15,000 to 25,000 dollars. To build a 1000 sq. ft. house on the lot is going to cost ca. \$140 per sq. ft. plus the cost of the house. The only way the builder can build a salable house is to go into the luxury market. So he builds a 4000 sq.ft. house + 3 car garage, all priced out at \$399,000. The market for a \$399,000 tract house is quickly saturated, the builder has his money tied up in a couple of unsold houses of the ilk, and construction comes to a halt.

The result is a respite for the forests, but higher rents, more families living in trailer parks, and higher welfare costs for the unemployed and homeless. JM

RESISTANCE to use of toxic chemicals in food production continues to increase. This helps feed the dreams of the micro-biologists. They picture getting rich by inserting genes into food plants that will make them resistant to attack by insects and diseases.

Most wild plants have genes to make such molecules. Most plants use compounds known as alkaloids to repel or toxify insect pests. Alkaloids are bitter compounds. Man has spent hundreds of years breeding vegetables that would be free of alkaloids so that he could enjoy eating them. Now we have thousands of micro-biologists working to be the first to get the alkaloids back in.

Vanity of vanities, all is vexation of spirit and vanity.

Meanwhile the nuclear people are rubbing their hands. We now have hundreds of thousands of soldiers in the Gulf as guinea pigs, to eat food preserved by radiation. If results are regarded as satisfactory, we will hear all about it and be urged to buy it. If results are considered unfavorable, they will become a military secret.

Compared to our ancestors who apologized to the spirit of a tree before cutting it down, or who thanked a cabbage for nourishing them before pulling it from the ground, science takes a harsher view of plants. Backster's experiments showing plants responding to emotional energy in their vicinity usually elicited from a scientist a snort of disgust or the amused smile of tolerant superiority.

The mechanistic view of life is being again challenged by recent experiments. In one series of experiments it was found that many plants, when attacked by an insect pest, began immediately to produce protective chemicals, toxic to or repellent to the insect.

Going beyond that, it was found that when the plant is attacked and begins manufacturing its defenses, the information becomes available to nearby plants who also begin to make the defensive chemical, even before any have been attacked by insects.

The challenge to the mechanistic mind is to explain such a phenomenon without invoking concepts of communication between plants or any suspicion of plant consciousness.

The latest discovery provides another turn of the screw. When a plant is attacked by an insect pest, it can provide a signal that calls in insect predators of the pest, thereby initiating a natural biological control for its benefit.

Reality appears richer than the "facts" of our mechanistic epistemology allow.

Continuing on the agricultural theme, 1990 did see a perceptible reduction in soil erosion and in use of chemicals. Soil loss was still estimated at one billion tons per year. Much too much!

As for reduction in use of chemicals, Gary Meyers, president of the Fertilizer Institute, handed out the old scare stuff saying, "People in Hollywood and Georgetown can afford a \$3.00 tomato, but what about the rest of the consumers." Texas ag commissioner Jim Hightower continues, however, to provide calm assurance for both farmer and consumer preferring to see reduced use of chemicals. If you want extensive reassurance that you will have abundant good food even if all biocides are eliminated, read *Secrets of the Soil*, Peter Tompkins, and Christopher Bird's new book.

The yearly use of 430 million pounds of pesticides is beginning to decrease with one reason being a loss of effectiveness as insects develop resistance. Integrated pest control is a better and a cheaper way to go. But most farmers need someone in the neighborhood to set the example for them before they risk such change.

We can use corn as a basis for some commentary on the problem. Forty-five years ago corn was grown without insecticides. Corn is a heavy feeder, and fertilizer use during the war showed that corn was capable of phenomenal yields. At the end of the war, midwest farmers were shooting for 100 bushel corn; then for 200 bushel and some were even trying for 300 bushel as an ultimate challenge. To get these yields they were using as much as 1000 lbs of nitrogen per acre. The plant effectively uses no more than about 225 lbs of that nitrogen, but one result of the excess is as of forced feeding. Some of the extra N goes into the plant where it could reach toxic levels toxic except

that the plant conjugates it with carbohydrates to form some "strange" compounds which, while not regularly recognized metabolites, are not toxic. Most of the excess N is washed into rivers by runoff, or percolates into ground water. There it has increased so in some areas that the water is no longer fit drinking water.

Beginning in the 50's nitrogen fertilizer came to be supplied by liquid ammonia, aqua ammonia, or other ammonium compounds. Some free ammonia regularly escapes from these into the air, where it acts as an attractant for insect pests of corn. Today corn is estimated to be the heaviest user of chemical insecticides of any crop. Importantly the farmer relying on chemicals uses 1+ calories of petroleum products to produce one calorie of corn.

Other side effect from excessive use of nitrogen on corn occur. Ammonia dissolves humus which may be washed down and out of the soil. Gaseous ammonia released acts as a soil fumigant killing much soil life. The result is a soil so sterile that corn stalks can be plowed down one year and, instead of rotting, be plowed up the next.

The "strange" compounds resulting from nitrogen detoxification are gummy and the high N corn is slow to dry so that harvest is delayed and the grain must be heated to dry it down to safe storage levels of moisture. Even then it is susceptible to attack by *Aspergillus flavus* and other molds. This bothers me as the aflatoxins from the mold are now so prevalent that permitted levels have been set for corn. Corn is the principal energy ingredient in pet foods. Some vets find aflatoxins contributing to degenerative diseases in pets.

When the farmer begins to reduce his use of chemicals and to build up the organic activity of his soil, several things occur. His soil warms up earlier in the spring and so he can plant sooner. The crop matures earlier and the mature grain dries naturally so energy is not required to dry it. Stalks plowed down in early fall begin to rot with the fall rains, and activity of organisms helps till the soil, the organic matter helps to hold moisture so there is reduced run off and less erosion. Insect problems are reduced to a level where integrated pest management is the most practical use. If the farmer knows his stuff, a properly timed cultivation can control weeds to a level where the few weeds left provide food and habitat for predator insects.

And more. But the point is made that farming is not a collection of isolated activities, not a calendar of chemicals to be applied on appropriate dates. We must recognize once again; *it is a total system in which everything is related to everything else*. Further, it is a dynamic system requiring continuous awareness, and a fluctuating, adapting management. JM

We thought that you - our readers - might like to re-read Mary Rhyne's history of our chapter that she wrote for the Fremontia. It seemed appropriate to reprint this nice piece of writing in support of our 25th anniversary.

#### A Brief History of the Dorothy King Young Chapter

It was the rallying cry of "Beat the Bulldozers" that brought the Gualala chapter members together on February 13, 1966. Word had been quickly spread by Dorothy and Charley Young that a baseball diamond was to be created on Brushy Opening Road and all who cared about native plants should appear with tools on February 13 to dig and rescue plants before they were "done in" by the bulldozers. About 32 volunteers turned out for this event which came to be known as 'The Big Dig'.

The Youngs had become enthusiastic members of the newly formed CNPS mother chapter in Berkeley in 1965. Their enthusiasm was contagious and with project 'Big Dig' fresh in mind Dorothy had no difficulty persuading the 32 volunteers to start a CNPS chapter in Gualala. For many months the meeting place was Grandpa Charley's Park, the affectionate name given to the Young's home and garden in the redwoods.

The first officers were: Dorothy King Young, president, Fred Schuler, Vice president, Winifred Schuler, secretary, Charles Migliavacca, treasurer.

One of the remarkable bits of history for our chapter was the presidency two years later of Fred Schuler. Fred was a high school senior, an eager naturalist who brought youthful inspiration to his office.

When the Berkeley chapter had its first plant sale in 1966, the Gualala chapter donated plants and sent Dorothy Young as an emissary with a good supply of her book *Redwood Empire Wildflower Jewels*.

Our chapter was proud to nominate Charley Young to be the first CNPS Fellow in 1973. Later in that year John Stout suggested that the chapter honor Dorothy Young for her tireless efforts in championing the importance of native plants by changing the chapter's name to Dorothy King Young Chapter. All members agreed and on September 30, 1973 the name was changed with the State Board's approval. In 1988 Dorothy was nominated and became a CNPS fellow for her dedication and leadership in bringing native plants before the public eye.

We are fortunate in having a number of coastal plant communities which are not only absorbing for our own study but attract members from other chapters and botanists from around the world. These include Coastal Strand, Coastal Prairie Northern Coastal Scrub, Closed-Cone Pine Forest and North Coastal Forest. Our region is probably best known for stands of Coast Redwood, rare Pygmy Forests, a fen, sphagnum bogs and the Ecological Staircase with its uplifting terraces and consequent distinctive vegetation.

Early in 1987 our chapter launched a program to control the exotic and invasive jubatagrass, *Cortaderia jubata* which had silently infiltrated much of our woodlands and highway right-of-ways. With the manpower aid of the Lions Service Club and the financial aid of the community we were able to eradicate most of the large stands of this giant grass by selectively spraying it with Roundup. The area of concern was approximately 50 square miles. Follow up consisted of spraying large clumps and digging smaller seedlings. The program has been in effect for three years and will require monitoring for several more years.

The territory covered by our chapter is unusually stretched out covering a narrow coastal strip from Jenner in Sonoma County to Cleone 98 miles north in Mendocino County. In our early days we had members from as far north as Humboldt County but as a nucleus of members gathered in the Arcata-Eureka area, that group formed its own North Coast Chapter. The handicap of being stretched out is the long distances members must travel to attend meetings.

Our major coastal concern is the race for development or buildout with threat of erasing entire plant communities and the wildlife which depends upon them. We feel the Sea Ranch in Sonoma County provides a good example of planning with thought given to preserving existing plant communities and open space. Their development plans forbid the introduction of exotic plants, protection is provided for wildlife, and common areas are set aside so the plant communities are left undisturbed. They provide a good illustration of man living harmoniously with the natural environment.

Mary Rhyne, February 15, 1990  
*Fremontia*, Vol. 18 No. 4 Oct. 1990

Below is a list of all of the past presidents of our chapter:

Year	President
1966-67	Dorothy King Young
1968	Fred Schuler
1969	Leila Romer
1970	Jim McNamee
1971	Jean Rand
1972-73	Dorothy King Young
1974-75	Mary Wells
1976	Ellsworth Seibert
1977	Howard Hill
1978	Albert Gustus
1979	Vi Frazer
1980	Tevis Thompson
1981	John Wellman
1982	Mary Rhyne
1983	Aileen Howden
1984	Fred Tarp
1985	Robert Perkins
1986	Florence Van de Water
1987	George Snyder
1988	Paul Jorgensen
1989	Fran Ellis
1990	John Horn



*Lilium humboldtii*, Humboldt Lily

**GUEST EDITORIAL:** Reprinted from *Conservation* 90, the Environmental Digest for the Resource Conservation Alliance, Vol. 8, No. 8, Oct. 15, 1990, pp 13-14.

Auto Fuel Efficiency: A Sensible, Sustainable Response to the Persian Gulf Crises - Senator Richard Bryan (D-NV).

Saddam Hussein's invasion and conquest of Kuwait underscored a simple truth: America is too dependent on foreign oil.

In the year of the Arab oil embargo, we imported little more than 37 percent of our oil from abroad; this year we will import 50 percent. This dependence on foreign has led to a doubling of the oil coming into the United States from the Persian Gulf since the 1973 embargo.

The cost of this dependence, once measured in billions of dollars sent abroad to foreign bank accounts, can now also be measured in the thousands of American lives being put at risk daily in the Persian Gulf.

We must reduce our dependence on foreign oil, and to do that we must reduce the amount of oil we use for transportation. The transportation sector eats up more than 60 percent of all the oil we use, and the automobile consumes the majority of that.

After a series of hearings last year, I introduced the Motor Vehicle Fuel Efficiency Act. The bill will require a 20 percent improvement in the Corporate Average Fuel Economy (CAFE) of each automobile manufacturer's fleet by 1995, and a 40 percent improvement of 2001. These percentage increases over the present 27.5 miles per gallon CAFE average would result in a new fleet in 1995 of 34 miles per gallon, and 40 miles per gallon by 2001.

This legislation would save us an estimated 49 billion gallons of gasoline between 1995 and 2001. By the year 2005, the legislation will save 2.8 million barrels of oil a day -- approximately 45 percent of the 6 million barrels of oil we presently use daily for automobiles.

As dramatic as the pay off will be, the question must be asked: can the auto manufacturers accomplish the goals set out in the bill? The auto representatives have argued vehemently that they cannot, that to impose these standards would be nothing short of the death knell for the industry and the destruction of the American way of life as we know it.

Obviously, it would do us little good to impose fuel economy standards the auto industry cannot reach, or that would destroy it. However, there is abundant independent evidence that the industry can accomplish these goals and still provide the consumer with the same mix of automobiles available today.

In 1974, when Congress considered the first CAFE legislation, the auto industry argued that:

"this proposal would require a Ford product line consisting of either all sub-Pinto-sized vehicles or some mix of vehicles ranging from a sub-sub compact to perhaps a Maverick."

In spite of the industry's dire predictions, it performed extremely well nearly doubling the fuel economy average from 14 miles per gallon to the present 27.5 miles per gallon since the CAFE law was put on the books.

Can they meet the goals of this bill? Yes they can.

A recent Environmental Protection Agency study revealed that for the model year 1988, if we calculated CAFE using the most fuel efficient car in every class--mid-size sedan, large luxury sedan, compact, etc.--we would have a CAFE average today of 33.9 miles per gallon. This is within one tenth of one percent of exactly where we want to be in 1995.

In short, the auto companies can meet the goals of the bill by building a complete array of fuel efficient cars, and we need to make sure they do build them or we will never come to grips with our mounting dependence on foreign oil.

As this bill has come closer to full consideration on the Senate floor, a more deceptive critique by the auto industry has surfaced concerning the issue of safety. The argument is that: the only way these CAFE levels can succeed is by downsizing the auto fleet which will result in significantly smaller, and therefore less safe, cars.

Recently, administration officials weighed into the debate by promoting this downsizing theory. This is nothing short of a scare tactic.

Detroit need not make smaller cars to meet the standard called for in this bill. Existing fuel efficient technology can be used to achieve the levels required by the bill without changing the mix of sizes in the fleet. Moreover, higher CAFE standards are likely to alter the current trend toward faster and more powerful vehicles. All auto safety experts agree that the highest performance cars also have the highest fatality rates, regardless of size.

This Senator happens to agree with the decision by President Bush to forcefully respond to Hussein's aggression. But we would be deceiving ourselves if we didn't also understand that at the heart of all of this is oil.

It does not take a crystal ball to realize that if we don't start conserving now, some future President may have to consider sending our young men and women back to the deserts of the Middle East. And that is the final and best reason to move forward on fuel economy legislation: So we don't have to send our young men and women back to the desert.

